In like manner, if there be a Prism of Glass (that is a Glass bounded with two Equal and Parallel Triangular ends, and three plane and well polished Sides, which meet in three Parallel Lines running from the three Angles of one end to the three Angles of the other end) and if the Refraction of the Light in passing cross this Prism be desired: Let ACB represent a Plane cutting this Prism transversly to its three Parallel lines or edges there where the Light passeth through it, and let dE be the Ray incident upon the first side of the Prism AC where the Light goes into the Glass; And by putting the Proportion of the Sine of Incidence to the Sine of Refraction as 17 to 11 find EF the first refracted Ray. Then taking this Ray for the Incident Ray upon the second side of the Glass BC where the Light goes out, find the next refracted Ray FG by putting the Proportion of the Sine of Incidence to the Sine of Refraction as 11 to 17. For if the Sine of Incidence out of Air into Glass be to the Sine of Refraction as 17 to 11, the Sine of Incidence out of Glass into Air must on the contrary be to the Sine of Refraction as 11 to 17, by the third Axiom. *Fig.* 2.

Fig. 3. Much after the same manner, if ACBD represent a Glass spherically Convex on both sides (usually called a *Lens*, such as is a Burning-glass, or Spectacle-glass, or an Object-glass of a Telescope) and it be required to know how Light falling upon it from any lucid point Q shall be refracted, let QM represent a Ray falling upon any point M of its first spherical Surface ACB, and by erecting a Perpendicular to the Glass at the point M, find the first refracted Ray MN by the Proportion of the Sines 17 to 11. Let that Ray in going out of the Glass be incident upon N, and then find the second refracted Ray Nq by the Proportion of the Sines 11 to 17. And after the same

same manner may the Refraction be found when the Lens is Convex on one side and Plane or Concave on the other, or Concave on both Sides.

AX. VI.

Homogeneal Rays which flow from several Points of any Object, and fall almost Perpendicularly on any reflecting or refracting Plane or Spherical Surface, shall afterwards diverge from so many other Points, or be Parallel to so many other Lines, or converge to so many other Points, either accurately or without any sensible Error. And the same thing will happen, if the Rays be reflected or refracted successively by two or three or more Plane or spherical Surfaces.

The Point from which Rays diverge or to which they converge may be called their *Focus*. And the Focus of the incident Rays being given, that of the reflected or refracted ones may be found by finding the Refraction of any two Rays, as above; or more readily thus.

Cas. 1. Let ACB be a reflecting or refracting Plane, *Fig.* 4. and Q the Focus of the incident Rays, and QqC a perpendicular to that Plane. And if this perpendicular be produced to q, so that qC be equal to QC, the point q shall be the Focus of the reflected Rays. Or if qC be taken on the same side of the Plane with QC and in Proportion to QC as the Sine of Incidence to the Sine of Refraction, the point q shall be the Focus of the refracted Rays.

Cas. 2. Let ACB be the reflecting Surface of any *Fig.* 5. Sphere whose Center is E. Bisect any Radius thereof (suppose EC) in T, and if in that Radius on the same side the point T you take the Points Q and q, so that TQ, TE, and Tq be continual Proportionals, and the point Q be the